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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,186	10/09/2001	David Reginald Adams	040283-0192	7541

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EXAMINER

BALASUBRAMANIAN, VENKATARAMAN

ART UNIT PAPER NUMBER

1624

DATE MAILED: 05/15/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/890,186

Applicant(s)

ADAMS ET AL.

Examin r

Venkataraman Balasubramanian

Art Unit

1624

-- The MAILING DATE f this communication appears on the cover sheet with th c rrespondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21-25, 28-30, 32 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-18, 21-25, 28-30, 32 and 34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION DETAILED ACTION

Applicant's election with traverse of Group IX, claims 21-25 and 28-30, in Paper No. 8 is acknowledged. The traversal is on the ground(s) that the elected groups also permit X^1 , X^2 , X^3 and X^4 either as nitrogens or CR_4 and therefore there is no difference among the restricted Groups I-IX.

Upon further consideration, examiner noted that certain omissions in the restriction requirement. Hence a revised restriction requirement as shown below is applied now.

Claims 1-18, 21-25, 28-30, 32 and 34 are now pending.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-18, 32 and 34, drawn to compound of formula I where X^1 , X^2 , X^3 and X^4 are nitrogens.

Group II, claim(s) 1-18, 32 and 34, drawn to compound of formula I where X^1 , X^2 , X^3 or X^2 , X^3 , X^4 are nitrogens and the other CR_4 .

Group III, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where X^1 , X^3 , or X^2 , X^4 are nitrogens and the other two CR_4 .

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Group IV, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where X^1 , X^2 , or X^3 , X^4 are nitrogens and the other two CR_4

Group V, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where X^2 , X^3 are nitrogens and the other two CR_4 .

Group VI, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where X^1 , X^4 are nitrogens and the other two CR_4 .

Group VII, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where one of X^1 , X^2 , X^3 and X^4 are nitrogens and the other CR_4

Group VIII, claim(s) 1-18, 32 and 34 drawn to drawn to compound of formula I where X^1 , X^2 , X^3 and X^4 are CR_4 .

Group IX, claim(s) 21-25 and 28-30 drawn to drawn various method of use of to compound of formula I where X^1 , X^2 , X^3 , X^4 are nitrogens or CR_4

If one of the Groups I to VIII were elected, applicants may elect a specific method of use for a specific disease.

If Group IX is elected applicants must elect a suitable X^1 , X^2 , X^3 and X^4 groups for examination.

The inventions listed as Groups I-IX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The requirement for unity of invention is two-fold: (1) common utility and (2) sharing a substantial structural feature disclosed as being essential to the utility. In the instant case both conditions are not met with.

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Group I, II, III, IV, V, VI, VII and VIII are independent and distinct from each other because they are directed to structurally dissimilar intermediate compounds that lack common core such as tetrazine, vs triazine versus pyrimidine vs pyridazine vs pyrazine pyridine or benzofused piperazinoindole. Consequently, the groups have different classifications and require separate prior art searches. They can be made and used independently. Art which may render obvious or anticipate one of the groups would not necessarily do the same for the other group as evident from the references cited in the Specification. Each can support a patent, as the compounds of each group are capable of being utilized alone not in combination with other members listed in the Markush group. The only portion that does not change is secondary hydroxyl group in the side chain and a nitrogen-bearing ring both of which are not solely contributing to the activity relied upon. Moreover, more than one utility recited in the Group IX as well as in the prior art cited and also in the specification of structurally related compounds negates the common distinct utility requirement.

Due to distinct nature of each of the inventions, a restriction is set forth in writing.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (703) 305-1674. The examiner can normally be reached on weekdays from 8.30 AM to 5.00 PM.

The fax phone number for the organization where this application or proceeding is assigned (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

V. Balasubramanian
Venkataraman Balasubramanian

5/13/2002